This response does not add, cancel or amend claims. The following Listing of Claims shall supersede all prior listings of claims submitted in this application.

Listing of Claims

1-45. (Cancelled)

46-51. (Previously cancelled).

52-55. (Cancelled).

56. (Previously cancelled).

57-58. (Cancelled).

60. (Previously cancelled).

61-69. (Cancelled).

70. (Previously Presented) A method for increasing the efficiency of transduction of a gene into cardiac muscle to treat cardiac disease in a patient, wherein the gene comprises a mutated form of a phospholamban (PLB) gene, and the method comprises the step of administering a viral vector comprising the mutated PLB gene to the heart while the patient is in a state of hypothermia.

71. (Previously Presented) The method of claim 70, wherein the gene is administered in a viral gene expression vector.

72. (Previously Presented) The method of claim 70, wherein the viral gene expression vector further comprises a promoter suitable for use in cardiac muscle.

73. – 76. (Cancelled)

77. (Previously Presented) The method of claim 70, wherein the viral gene expression vector is an adeno-associated viral vector (AAV).

78. (Previously Presented) The method of claim 70, further comprising co-administering a sarcoplasmic reticulum CA2+ ATPase (SERCA-2) gene with the PLB gene to the cardiac muscle.

79. (Previously Presented) The method of claim 70, wherein the PLB gene is a dominant negative PLB gene.

80. (Previously Presented) The method of claim 79, wherein the PLB gene comprises a mutation of E2A.

81. (Previously Presented) The method of claim 79, wherein the PLB gene comprises a mutation of R14E.

82. (Previously Presented) The method of claim 79, wherein the PLB gene comprises a mutation of S16N.

83. (Previously Presented) The method of claim 79, wherein the PLB gene comprises a mutation of S16E.

84. (Previously Presented) The method of claim 79, wherein the PLB gene comprises a mutation of V49A.

85. (Previously Presented) The method of claim 79, wherein the PLB gene comprises a mutation of K3E and R14E.

86. (Previously Presented) The method of claim 79, wherein the mutated dominant negative phospholamban gene further enhances SERCA-2 activity in the cardiac muscle.

87. (Previously Presented) The method of claim 70, wherein the phospholamban gene is administered with a permeabilizing agent.

88. (Previously Presented) The method of claim 87, wherein the permeabilizing agent is histamine, substance P or serotonin.

89. (Previously Presented) The method of claim 70, wherein the cardiac muscle is in the heart of a human patient.

90. (Previously Presented) The method of claim 88, wherein the patient is suffering from cardiac arrest or brachycardia at the time that the gene is administered.

91. (Previously Presented) The method of claim 88, wherein the heart is isolated from systemic circulation at the time that the gene is administered.

92. (Previously Presented) A method for treating cardiac disease, the method comprising administering a gene encoding mutated phospholamban to the cardiac muscle, wherein the phospholamban mutation comprises S16E.

93. (Previously Presented) The method of claim 92, wherein practice of the method reduces the occurrence of cardiac interstitial fibrosis.

94. (Previously Presented) The method of claim 93, wherein practice of the method increases cardiac muscle contractility.

95. (Previously Presented) The method of claim 92, wherein the gene is administered via a viral expression vector.

96. (Previously Presented) The method of claim 95, wherein the viral expression vector is AAV.

97. (Previously Presented) The method of claim 95, wherein the viral expression vector is an adenoviral vector.